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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Christopher N. Japp et al.

Serial No.: 09/747,547

Filed: December 22, 2000

For: MEDICAL IMAGING SYSTEM
LOCALIZATION METHOD AND
APPARATUS

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Group Art Unit: 2164

Examiner: Chojnacki, Melissa M.

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Tait R. Swanson

Sir:

REPLY BRIEF PURSUANT TO 37 C.F.R. §§ 41.31 and 41.41

The Appellants submit this Reply Brief pursuant to 37 C.F.R. §§ 41.31 and 41.41 and in response to the Examiner's Answer mailed on November 8, 2005. Specifically, this Reply Brief addresses the Examiner's response to argument section, which begins on page 15 of the Examiner's Answer. Appellants respectfully request that the Board consider Appellants' complete arguments set forth in the previously filed Appeal Brief along with the following remarks.

Remarks

Referring generally to the Examiner's "Response to Arguments" on pages 15-24 of the Examiner's Answer, the Appellants submit that the Examiner has still failed to present a *prima facie* case of obviousness with regard to claims 1-45. As stressed throughout the Appeal Brief, the Dunworth et al. (U.S. Patent No. 5,930,474) and Killcommons et al. (U.S. Patent No. 6,424,996) references, taken alone or in hypothetical combination, fail to teach or suggest a number of features found in the claims. In addition, the Examiner has not shown the requisite objective evidence of a motivation or suggestion to combine the Dunworth and Killcommons references.

Deficiencies of Cited References

Regarding the cited references, the Dunworth reference merely teaches an Internet-based phone book with corresponding maps without any mention or suggestion of specific medical equipment or resources. See Dunworth, Abstract. The Dunworth reference includes both geographic information (e.g., addresses, phone numbers, e-mail addresses, etc.) and topical information (e.g., hardware stores, schools, hospitals, etc.). See Dunworth, Figs. 10 and 18; col. 9, lines 28-67; col. 10, lines 1-6; col. 16, lines 56-63. In other words, the topical information disclosed by Dunworth appears like an index typically found in a phone book, or headings typically found in various sections of the yellow pages. The Appellants reiterate that the disclosed topical information merely categorizes the different businesses, e.g., hardware stores, schools, hospitals, etc. The Dunworth reference specifically discloses:

As will be discussed below, the topic list presented to the user includes a list of topics such as business services, entertainment, news, consumer goods, historic sites, etc. Each topic within the topic list may also include a subtopic list. For example, under the topic "schools," the subtopics of elementary, high school, and colleges and universities may be included...

Once the user has selected a topic for which there are no further subtopics, the web organizer server 114 accesses information relating to particular companies, enterprises, institutions, organizations, or entities

associated with the selected topic. These may include federal, state or local government, businesses, individuals, and the like. For example, a list of particular stores such as "Bill's Hardware" and "ACE Hardware" may be accessible under the topic "hardware stores." Thus, if it is determined that the user has selected a topic having associated information for viewing, as represented within the decision block 235, the system accesses a yellow pages database 245, as represented within an activity block 240.

If the user desires to access further information about one of the particular entities listed (for example, if the user desires to contact a particular high school), then the address, phone number, etc., of that entity (e.g., high school) would be presented to the user when the user points to the desired listing and clicks the mouse button...

In either case, the user is presented with the opportunity to view additional information relating to the selected entity, as represented within a view information activity block 250. For example, as shown in FIG. 2C, the yellow pages database may include information such as the address, phone number, fax number, E-mail, other miscellaneous information, etc., which relates to the particular topic or subtopic selected by the user. The miscellaneous information included within the yellow pages database 245 may, for example, include interesting facts or comments about the selected topic, as well as graphical display or text advertisements, directions to the place or places associated with the topic, etc. An exemplary screen display which may be presented to the user upon access to the notes portion of the yellow pages database 245 is depicted in FIG. 11.

Dunworth, Col. 9, lines 28-34 and 55-67; Col. 10, lines 1-6 and 16-30 (emphasis added). In view of the foregoing passages, the Appellants reiterate that the Dunworth reference is merely an Internet version of yellow pages, which clearly do not include information specific to particular medical diagnostic systems, imaging systems, and other specific medical equipment or resources. The foregoing passages mention "other information" that may be included along with addresses and phone numbers, but Appellants stress that the Dunworth reference does not suggest or provide any motivation to include information about specific medical equipment or resources, e.g., MRI systems, CT systems, and so forth.

Turning to the secondary reference, the Killcommons reference merely discloses data transfer in the field of medicine, yet the data is related to medical diagnostic results

rather than geographical locations of medical equipment. In other words, the Killcommons reference discloses network sharing of text, images, video, and sound relating to diagnosing a patient. For example, the Killcommons reference specifically discloses:

BACKGROUND

In many fields (e.g., medicine, manufacturing, veterinary science, scientific research, etc.), it is often necessary to examine a subject and communicate the results of the examination to a remote place. Such information exchanges are especially desirable in the medical arena where it is often useful for medical practitioners to communicate medical information, such as patient test results, to other practitioners located in remote places. Telemedicine facilitates this exchange of information.

Telemedicine is an emerging field that enables medical knowledge to be shared amongst a variety of users that need not be co-located. Interest in telemedicine has exploded in the 1990's with the development of medical devices for capturing data in digital electronic form and the establishment of high speed, high bandwidth telecommunication systems around the world. In particular, the use of the Internet in telemedicine allows a practitioner at one location to interpret medical test results and consult with another practitioner located elsewhere...

Medical information (e.g., as may be utilized by a telemedicine system) may be derived from many different medical modalities. Such modalities may include sophisticated radiology equipment grouped as small matrix size and large matrix size instruments. Small matrix systems include equipment for magnetic resonance imaging (MRI), computed tomography (CT), ultrasonography (US), nuclear medicine (NM) and digital fluorography. Large matrix systems include equipment for computer radiography (CR) and digitized radiography (DR). Other data image acquisition equipment may be used for radiofluoroscopy, angiography, such as x-ray angiography and heart scanning. Still other equipment of great usefulness in acquiring medical information includes secondary capture devices for video, endoscopy, microscopy, and photography, such as digital cameras, scanners, electrocardiogram (ECG) machines, and the like.

The resulting medical information may take numerous forms, including text, images and video, or variations thereof, such as image overlay data, measurements, coordinates, etc. Information may also be in the form of time-dependent data including sound, such as audio dictation,

and waveform data. The data may be static representations of time-dependent forms, such as curves. Thus, it is advantageous for telemedicine systems that may need to transfer the data and/or information to be flexible, so as to accommodate this variety of information/data from multiple modalities...

DETAILED DESCRIPTION

The Medical Network System and Method for Transfer of Information described below is configured to provide a rich variety of image manipulation, viewing and annotation tools for review of information and transfer of the information to remote users. The system utilizes browser and/or e-mail enhancement units, such as may be embodied in a plug-in for Netscape-brand browser interfaces ...

The data that is transferred by the operator of a server configured in accordance with the present teachings may take numerous forms. Some common formats include text, images, video, sound, such as audio dictation, waveform, curves, and/or combinations or variations thereof. Moreover, although the data may pertain to the examination of a subject in any number of fields, such as manufacturing, veterinary science, scientific research, etc., the data is preferably medically related to a subject's physical condition. Medical data of this sort may be grouped into various types. Clinical data is information acquired by a medical modality during the examination of a patient and relates to the patient's physical health. Examples of clinical data may include radiology images, camera photographs, sound recordings, and the like. Parameter data is another type of data representing criteria surrounding the acquisition of clinical data. Parameter data includes the settings of the medical modality acquiring the clinical data, relationships of multiple sets of data such as overlay data, timing of the data acquisition, measurements, coordinates, and the like. The parameter data includes some of the information required by the DICOM Standards for stored and transferred medical files. Other medical data may include 3-D volume data; series data for all clinical data in a medical series, e.g., coronal slices vs. axial slices in a CT exam or echoes as T1 slices vs. T2 slices in an MRI exam; annotation data for notes made by a practitioner, usually relating to the clinical data; and background data such as patient history and/or physical examination information.

Killcommons, Col. 1, lines 20-41 and 49-67; Col. 2, lines 1-10; Col. 20-28 and 39-67 (emphasis added). In view of the foregoing passages, the Appellants reiterate that the Killcommons reference merely discloses the transfer of patient data, diagnostic images

taken of a patient via MRI, CT, etc., and other information relevant to the treatment of a particular patient. However, once again, the Appellants stress that the Killcommons reference does not teach or suggest the geographic locations of specific medical equipment.

In view of the foregoing discussions of the Dunworth and Killcommons references, the Appellants again stress that the features of independent claims 1, 16, 29, and 38 and their dependent claims are clearly missing from the cited references, taken alone or in hypothetical combination with one another. In addition, the Appellants stress that the pending claims must be given an interpretation that is reasonable and consistent with the *specification*. See *In re Prater*, 415 F.2d 1393, 1404-05, 162 U.S.P.Q. 541, 550-51 (C.C.P.A. 1969) (emphasis added); see also *In re Morris*, 127 F.3d 1048, 1054-55, 44 U.S.P.Q.2d 1023, 1027-28 (Fed. Cir. 1997); see also M.P.E.P. §§ 608.01(o) and 2111. Indeed, the specification is “the primary basis for construing the claims.” See *Phillips v. AWH Corp.*, No. 03-1269, -1286, at 13-16 (Fed. Cir. July 12, 2005) (*en banc*). One should rely *heavily* on the written description for guidance as to the meaning of the claims. See *id.*

Turning first to the independent claims, the Dunworth and Killcommons references, taken alone or in hypothetical combination, fail to teach or suggest “the *medical locator system* is configured for multiple *modalities*, the client data comprising a desired geographic region for locating a desired medical resource for a least one of the multiple modalities,” as recited by independent claim 1. Similarly, the Dunworth and Killcommons references, taken alone or in hypothetical combination, fail to teach or suggest “a resource *locator system* configured for locating a desired medical resource,” as recited by independent claims 16 and 29. Moreover, the Dunworth and Killcommons references, taken alone or in hypothetical combination, fail to teach or suggest “searching a medical locator database for the at least one medical resource,” as recited by independent claim 38.

Regarding the dependent claims, the Dunworth and Killcommons references, taken alone or in hypothetical combination, also fail to teach or suggest “receiving the *selection* from a plurality of medical imaging systems” or “a *selection* of the desired medical resource from a plurality of medical imaging systems” as recited by dependent claim 6 and 22, respectively. Similarly, the Dunworth and Killcommons references, taken alone or in hypothetical combination, fail to teach or suggest “a *selection* of the desired *medical* resource from a plurality of modalities” or “the *query form* comprises a *field* for *selecting* the desired *medical resource* from a plurality of medical resources comprising multiple modalities” or “a *selection* from a plurality of *medical resources* comprising multiple modalities,” as recited by dependent claims 21, 30, and 39, respectively.

Improper Combination

In addition to the missing elements discussed above, the Appellants reiterate the lack of a reason to combine the Dunworth and Killcommons references. The Examiner has repeatedly asserted that the cited references can be combined with one another, and that the cited references are in the same field. See Examiner’s Answer, pages 17-19 and 23. For example, the Examiner specifically stated that the “references pertain to requesting information over the Internet and therefore, are in the same field of endeavor and can be combined.” *Id.* However, the Appellants stress that the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d. 1430 (Fed. Cir. 1990). Furthermore, the Appellants submit that a mere commonality of subject matter or field of endeavor is clearly insufficient in itself to establish a *prima facie* case of obviousness. The Examiner must provide objective evidence, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. *In re Lee*, 61 U.S.P.Q.2d. 1430 (Fed. Cir. 2002).

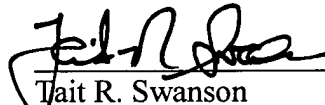
Instead of providing such evidence, the Examiner makes various statements about the absence of a teaching away or a change to the principle of operation. For example, the Examiner stated “Dunworth et al. does include medical information and therefore is not ‘incapable’ of locating medical resources” and also that “‘topics’ in Dunworth et al. do not exclude ‘medical modalities’ or ‘medical resources.’” Examiner’s Answer, Pages 17 and 23 (emphasis added). The Appellants stress that a reason to combine does not automatically arise (no presumption) in the mere absence of a teaching away, change of principle of operation, and so forth. Again, the mere possibility that references can be combined is insufficient without objective evidence. The Examiner further stated “[c]ombining Killcommons et al. teachings of the types of medical modalities that can be requested and including that as a topic in Dunworth et al. would only add to the functionality of Dunworth et al. and not change it.” Examiner’s Answer, Page 23 (emphasis added). Again, the Appellants submit that the Examiner’s position is unsupported by objective evidence and, thus, cannot support a *prima facie* case of obviousness.

Conclusion

In closing, Appellants remind the Board again that the Examiner bears the burden of establishing a *prima facie* case of obviousness. With that in mind, Appellants respectfully assert that the foregoing remarks, along with the previously filed Appeal Brief, clearly establish that the Examiner has failed to satisfy the proper evidentiary thresholds. Accordingly, Appellants respectfully assert that independent claims 1, 16, 29, and 38 and their dependent claims are patentable over the cited references and in condition for allowance. As such, Appellants respectfully request that the Board overturn the outstanding rejections and direct the Examiner to allow these claims.

Respectfully submitted,

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